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ABSTRACT

The effects of college choice on the educational experiences and attainments of female and male college entrants in 1972 were studied, using institutional data and results of the National Longitudinal Study of the High School Class of 1972. Attention was directed to: college control and level, average Scholastic Aptitude Test scores, percent of students with family income below $6,000, the extent of vocational studies offered, school size, highest degree granted, proportion of part-time students, expenditures per student, and average tuition and fees costs. Separate analyses by sex showed the effects of student background on college choice, the correlation of college characteristics with students' college participation versus work and family roles, effects on grades, and influences on student contact with faculty and satisfaction with college. College characteristics that seem most detrimental to womens' persistence and graduation were high vocationalism, high proportions of part-time students, high costs, and a large proportion of high income students. The most detrimental college characteristics for men were large size, high proportions of part-timers, high expenditures per student, and low costs. Seven statistical tables and a bibliography conclude the paper. (Author/SW)

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College Effects on the Educational Attainment of Males and Females

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ABSTRACT

This study uses data from the National Longitudinal Study of the High School Class of 1972. It analyzes the college experiences and educational attainment of those students in the NLS sample who entered postsecondary education in 1972. By merging data on postsecondary institutions with the NLS individual data, it allows the examination of how students' college choices affected them. Traditional institutional classifications (control by level) and the following specific college characteristics are analyzed: average SAT scores of incoming students, percent of incoming students with family income below $6,000, proportion of major areas in vocational fields, institutional size, highest degree granted, proportion of students enrolled only part-time, educational and general expenditures per student, and average tuition and fees costs. Analyses, separately for males and females, show the effects of student background on selection into varying college types, the correlation of college characteristics with involvement with the student role versus work and family roles, effects of colleges and role involvements on grades, faculty contact, and college satisfaction, and college, role involvement, and college performance/experience effects on student persistence and graduation. The characteristics of colleges which seem most detrimental to womens' persistence and graduation are high vocationalism, high proportions of part-time students, high costs, and high SES composition. The most detrimental college characteristics for men are large size, high proportions of part-time students, high expenditures per student, but low costs. Some negative effects of college characteristics are confounded with positive effects on student grades.

Introduction

With the increasing size and diversity of the institution of higher education in the United States, has come increasing sociological interest in the consequences of where one goes to college, in addition to the older interest in whether or not one goes to college. Several studies now indicate that the expansion of higher education has not increased overall rates of social mobility in the U.S., in part because of differential allocation to the many different forms of higher education that now exist (Mare, 1981; Bowles, 1972). Despite this increase of interest in college effects, few studies have been done using nationally representative samples with adequate controls for individual selection/recruitment variables. This study uses a national sample of high school graduates of the class of 1972 who entered college the following year. It examines the effects of where students went to college on their academic performance and other college experiences, and their odds of persistence and graduation.

Review of College Effects Studies

Studies of college effects have generally found that simple associations of college characteristics with educational outcomes do overstate the actual influence of colleges. About half of the total association is due simply to the fact that students who go to different kinds of colleges also differ in many academically relevant attributes: social status, ability, race, high school preparation, and motivation. However, small but significant college effects remain, even controlling for a variety of such factors (Wegner and Sewell, 1970; Alwin, 1976; Astin and Panos, 1969; Kamens, 1971). Colleges have effects on: G.R.E. scores (Centra and Rock,1971), rates of attrition versus graduation (Folger et al, 1970; Parnes and Rich, 1980; Astin, 1975,1977), the probability of going to graduate school (Spaeth, 1968;

Alexander and Eckland, 1977), and even occupational status and earnings (Solmon, 1975; Solmon and Wachtel, 1975; Tinto, 1980; Sewell and Hauser, 1975; Spaeth, 1970). Higher achievement outcomes are associated with: a liberal arts curriculum (Astin and Panos, 1969; Alwin, 1974; Solmon and Wachtel, 1975), private rather than public control (Astin and Panos, 1969; Alwin, 1974; Thomas, 1981; Trent and Medsker, 1968), fouryear rather than twoyear level (Anderson, 1981; Folger, Astin and Bayer, 1970; Astin, 1971) and higher status university versus fouryear college level (Solmon and Wachtel, 1975; Wegner and Sewell, 1970). Studies have also found effects of expenditures per student (Wachtel, 1975) average faculty salaries (Solmon, 1975), size (but with inconsistent evidence - see Astin and Panos, 1969; Rock, Centra and Linn, 1970; Kamens, 1971; Thomas, 1981), faculty/student ratios (Solmon, 1975), cohesion of the environment (Astin, 1977), rates of student employment (Astin and Panos, 1969), and average student income (Solmon, 1973).

A number of social scientists have suggested a need to examine the effects of the social organization of postsecondary institutions. For example, Kamens (1971) outlines several organizational features of colleges and universities that tend to be adopted by those institutions which are believed to produce leadership or corporate elites: rituals of selection upon entry and early in the college career; residentiality, often in a rural or other isolated location; small size and low complexity, with an emphasis on a common liberal arts curriculum rather than on diverse specialized vocational programs; and single sex composition. Several conflict sociologists have implicitly or explicitly emphasized the importance of varying organizational characteristics of colleges serving different social class populations. Bowles and Gintis (1976), in particular, have described the institutions serving lower SES populations as highly bureaucratized and rigid, low in

cohesion, and anti-intellectual:as "high schools with ashtrays". Feldman (1974) has suggested the need to include in college effect studies such social organizational dimensions as: control, status, goals, bureaucracy/complexity, density, and cohesiveness. Much of Astin's work has used factor analytic techniques to isolate dimensions of institutions which are based both on structural and compositional features of colleges. For example, Astin (1962) uses the factors of size and curricular variety, homogeneity in major field, technical versus intellectual orientation of students, and affluence in resources.

This study draws both on previous empirical work on college effects, and on previous theoretical and factor analytic specifications of dimensions of colleges which might affect status attainments of entrants.

A Causal Model of College Effects

Despite the increasing quality of research on college effects, a number of common flaws can be cited. Studies have frequently excluded non-graduates, thus ignoring the importance of college effects of whether students manage to graduate. Studies also have often excluded other crucial student groups: those who later enter graduate school, and those who begin in two-year community colleges. Studies have also tended to take one of two strategies for the investigation of college effects. They either decide on an a-priori basis to study only one college characteristic (usually "selectivity"), or they begin an analysis with a great number of college characteristics, and select those to study by using a stepwise regression program that picks those characteristics that add significantly to explained variance. Neither of these strategies would seem as normal in analyzing individual causes of a phenomenon. Finally, studies of college effects have frequently involved an assumption that very little else is going on in college students' lives, other

than college itself. With increasing levels of student employment, off-campus residence, and marriage, it becomes more important to control for these factors when examining college effects: colleges do vary in the degree to which their students tend to have these competing role involvements.

This study also partially integrates the factors of student social and academic integration which have become increasingly important variables in contemporary studies of college attrition (Chapman and Pascarella, 1983). It does so by including as intervening variables in the causal model three aspects of integration: college academic performance, contact with faculty, and overall satisfaction with the college. Finally, of course, the study includes an adequate set of individual level control variables, in order to isolate "true" college effects from simple between-college differences in student "inputs".

Figure 1 here

Gender and College Effects

The general stratification literature suggests some basis for expecting differences in the effects of colleges on women and men. First, the status attainment (educational and occupational) of women is less strongly related to ability and high school academic performance, but more strongly related to high school curriculum (Marini, 1978 , 1979). Second women's attainment is more strongly related to parental socio-economic status, especially maternal status (Alexander and Eckland, 1974; DeBord, Griffin and Clark, 1977).

Women's attainment in education and occupation is also negatively affected by frequency of dating in high school, and by early age at marriage (Alexander, Reilly and Eckland, 1982). Wise and Steel (1980) report that marital/family status is as good a predictor of postsecondary progress for women as ability is for men. The number of children and the marital status of

men does not seem to negatively affect them, and may even have a positive effect on later occupational status (Marini, 1978,1979).

From this litrrature, it appears that women may be particularly susceptible to the influence of female role models and to problems arising from involvement in the competing wife/mother roles. On the other hand, "meritocratic" ability and achievement factors seem to have less influence on women's than men's attainment.

We also know that there are differences by gender in the college choice process. Hanson and Litten (1982) found that women students' institutional choices are more closely tied to income than is true for men. Rosenfeld and Hearn (1982) report that more "family background" factors are significant predictors of the college choices of women -- especially parental education, race and income. Alexander and Eckland (1977;1980) also found that college selectivity was more strongly related to SES origins than to ability or high school grades for women, echoing again the more general studies on status attainment.

Women make their college choices earlier, apply to fewer schools, and are more likely to get into their first (and often only) choice school (Rosenfeld and Hearn, 1982). Once in college (and they enter right after high school more often than men), women seem to drop out at about the same rate as men, complete their bachelor's degrees on schedule more often, but are less likely to return if they do drop out, or to persist and graduate when not on schedule (Heyns and Bird, 1982; Wise and Steel, 1980). Among students of low to medium academic skills, women seem to have a particular disadvantage in persistence and graduation (Wise and Steel, 1980). In college, they have traditionally entered major fields with greater faculty/peer interpersonal support, but lower status rewards (though sex differences in major are now narrowing)(Heyns

and Bird, 1982).

A few studies have specifically examined differential college effects on men and women. Alexander and Eckland (1977) found that college selectivity has stronger effects on women's college grades, leading in turn to lower academic self concepts. However, selectivity has no direct effect on educational attainment of women, though it has a positive effect for men. Morgan and Duncan (1975) also found no effect of selectivity on earnings of women, though selectivity was significant for men. Thus it is clear that there is a need to "disaggregate" analyses of college effects by gender. Men and women enter college, even now, with varying orientations, and colleges affect them in different ways.

Methods

The data used in this study are taken from the National Longitudinal Study of the High School Class of 1972. The baseyear data for the NLS were obtained in the Spring of 1972, when the students were high school seniors. Followup surveys have been done in 1973, 1974, 1976 and 1979. The following restrictions on the sample were used for this study:

(1)respondents must have entered an academic program in a two- or four-year college immediately after high school graduation (Eckland et al, 1979).

(2)respondents must have completed the base-year questionnaire (with test bank), and all follow-ups.

Information on the survey instruments, follow-up procedures, and other matters can be obtained in Levinsohn et al (1978).

The NLS cohort - descriptive summary. Numerous studies have been done on the college experiences of the NLS sample. Background information on the nature of the sample may aid in interpretation of the results. In 1972, 59% of white males, 46% of nonwhite males, 56% of white females, and 52% of black

females in the NLS high school sample were enrolled in some form of postsecondary education, on a full or part-time basis (Manski and Wise, 1983). Eckland and Alexander (1980) estimate that about 43% of the sample were in degree-granting schools at this time. By 1975, 40% were in some form of schooling, and by 1976, 28% were still in school. About 3% delayed entry to 1973, and another 7% who delayed entry to 1974 through 1976. By 1976, over half of the NLS cohort had entered college. The determinants of delayed entry seem to have been quite similar to those of immediate entry (Manski and Wise, 1983; Eckland and Alexander, 1980). However, because of possible differences in consequences of colleges for immediate and delayed entrants, only the immediate (1972) entrants are used in this study. Most of the cohort did enter in their first year and attended only in consecutive years, with little alternation of school and work. For example, among white males, 33% never attended college, 14% attended only one year from 1972 to 1976(usually 1972), 12% attended two years, 9% three years, 18% four years (usually starting in 1972 or 1973), and 12% attended all five years. Only 6% had one year interruptions, and four percent had multiple year interruptions. Most of even the delayed entrants were continuous after they entered. Most showed slower than "normal" progress in college, with many still in school without a degree in 1976 (Manski and Wise, 1983).

By 1974, about a third of four-year college entrants and three fifths of two-year entrants had dropped out. By 1976, about 35% were not attending and had not graduated. Out of the 1972 entrants, 39% had a degree by 1976, with 20% still enrolled. Sixteen percent of 1972 entrants transferred between four-year colleges, and 3% moved from four-year to two-year schools in the first two years (Alexander and Eckland, 1980).

Measurement of background/control variables. Socio-economic status is

measured using four separate indicators: father's education (FAED), mother's education (MOED), father's Duncan SEI score for occupation (FOCC), and family income (INC). Race is a dummy variable (BLACK), with blacks coded as 2 and whites as one. Religion is a dummy variable contrasting Jewish (2) with all other religious affiliations(1) -JEW. Ability (ABIL) is the standardized sum of scores on the reading, letter groups, math, and vocabulary subtests given with the base-year questionnaire. High school curriculum is a dichotomy contrasting college preparatory with general and vocational tracks (COLPGM). High school performance is a measure of average high school grades, taken from school record information forms (HSGPA). Educational plans (EDASP) refers to the level of education the student expected to attain as of the base year. ACSC is a measure of academic self-concept, measured by student confidence in ability to complete college, also as of the base year.

Measurement of post-high school role involvements. Marital status (MS) is a dichotomy contrasting those students who were married as of the first follow-up questionnaire in 1973, with those who were not. LFP and WKSTD are a set of dummy variables. LFP is scored as 1 if the student was employed, but not in a work-study job, as of the first follow-up. WKSTD is scored as 1 if the student said he/she was obtaining funds from work-study employment. Non-working students received scores of 0 on both and are the comparison group. Hours of employment (HRSEMP) is a measure of the number of hours per week that employed students worked. It is recoded to the mean for non-working students, and so unstandardized coefficients are based only on the relevant subgroups (see Cohen and Cohen, 1983). Residence on-campus (CAMPUS) is a dichotomy contrasting students who lived on-campus in 1973 with those who did not. It was not available for the 1972 period. Therefore, if students were not enrolled in the fall of 1973, it is defined as missing.

Measures of college experiences. GPA is a measure, from the first follow-up survey of average college grades. FAC is a measure, admittedly poor, of degree of student contact with faculty. It is based on a single question concerning whether the student said he/she knew a faculty member well enough to ask that person to write a letter of recommendation for a job or graduate school. Overall level of satisfaction (OSAT) is the average rating of several aspects of the college and one's experiences there, on a one to five scale.

Measures of educational outcomes. After a number of preliminary analyses, three educational attainment measures were chosen for presentation. The first is an indicator of whether the student persisted to the third year of college (1974) or not. This is a crucial year, especially for those students who began in two-year community/junior colleges. The second two measures both have to do with completion of a bachelor's degree. The first is a measure of whether the student had completed a degree by the time of the third follow-up in 1974. Students who had followed a "normal" college path would have obtained a four year degree by this time. The second is taken from the last follow-up in 1979, at which point students have had seven years to finish their degrees.

Measures of college characteristics. The following variables are used in analyses. First, for some tables, two different basic typologies have been used, in order to explore the effects of the basic sector of higher education in which a student enrolls. The first typology is a combination of control and level, with categories for private universities (PRU), private four-year colleges (PR4), public universities (PUBU), public four-year colleges (PUB4), and the omitted comparison groups of two-year colleges, public and private. Earlier analyses showed few differences between two-year colleges under public

and private control, and few students are in private two-year schools. Two-year colleges are those offering only associate degrees or lower. Four-year colelges are those offering at least four years of post-high school work, granting bachelor's or equivalent degrees. Universities are those with considerable emphasis on graduate instruction, with at least two professional schools not exclusively technical in character. The second classification breaks control into finer distinctions: Catholic (CATH), other religious-affiliated (RELIG), non-religious private (PRIV), versus the omitted group of public colleges. When examining its effects on outcomes, degree level is also included, because of the fact that private colleges also tend to be four-year colleges rather than universities.

Earlier analyses indicated that the effects of basic classification schemes such as these were primarily due to differences in more specific aspects of institutions. Therefore, the major analyses simply omit any basic classification, and deal with the effects of specific college characteristics. Preliminary factor analyses, both exploratory and confirmatory, helped in the selection of the relatively small number of characteristics used here out of a much larger number of available variables on institutions[1]. Exploratory factor analyses (principal components with orthogonal rotation), indicated four factors in college characteristics. The first has a positive loading for percent living on campus and negative loadings for vocational major areas and part-time students. The second has positive loadings for measures of college size, number of different major areas, and diversity of majors offered. The third factor has high positive loodings for percent of graduate students, expenditures per student, tuition/fees cost, and average SAT scores of freshmen. The fourth factor has a lower positive loading for SAT scores, and negative loadings fo percent of low SES students and percent minority

students. These seem to correspond, at a theoretical level, to dimensions of "cohesion", "bureaucratization", "quality", and "socio-economic composition". Confirmatory factor models, using Joreskog's LISREL IV program, found that a four factor model, with either orthogonal or oblique factor structure, did not fit the data as well as models which had more factors. In particular, vocational major areas, SAT scores, and graduate students (or degree level), when each separated out into unique factors, significantly improved model fit. Based on these analyses, preliminary regression analyses, and policy-relevant interests, the following specific college characteristics were retained for the analyses presented here:

1. average SAT scores - the traditional measure of selectivity
2. size - as a proxy for complexity and bureaucratization
3. percent of low income students (under $6,000 per year in family income) - as a measure of socio-economic composition
4. percent students enrolled part-time - as a measure of cohesion or integration
5. percent of majors offered in vocational areas (with vocational defined as any area other than traditional liberal arts and sciences, including education, engineering, business, trades, and applied programs.
6. combined tuition and fees costs for undergraduates
7. educational and general expenditures per student - a traditional indicator of quality of resources
8. highest degree level (from associate to doctoral)

Data Analysis Techniques. Multiple regression analyses are presented in all of the following tables. In most, both the metric or unstandardized regression coefficients and their standardized equivalents are presented.

While standardized coefficients are most useful for comparing the strength of effects within one sample, unstandardized coefficients are more useful in comparing effects of the same variable across the two gender subgroups. Unstandardized coefficients are also more useful in analyzing the effects of dummy variables. The unstandardized coefficient can be interpreted as the adjusted difference between one subgroup and the omitted comparison group. The Y-intercept gives the adjusted mean value of the dependent variable for that omitted group. Significant coefficients are indicated with asterisks (*). The R^2 indicates the degree to which the variation in a dependent variable can be explained by a given set of predictors. Significant increments to explained variance with the addition of an entire set of predictors is indicated with an asterisk (*). Separate equations are presented for males and females.

Missing data in variables were replaced with the mean of the data-present distribution for that gender subsample. This mean substitution procedure is a basically conservative procedure, as it generally leads to attenuation of correlations of variables (Cohen and Cohen, 1975). While mean substitution does affect standardized and explained variance, it does not affect unstandardized coefficients or intercepts -- these are based only on the data-present distribution.

Results

Table 1 shows how student background characteristics have affected their college choices. For each gender, the effects of social status, ascribed statuses, academic preparation, and educational goals are seen. A number of previous studied have indicated the importance of social background in the college choice process. For example, low SES, black and women students have been found less likely to attend more selective and affluent colleges, even

controlling ability (Alexander and Eckland, 1977; Sewell, 1971; Peng, Bailey and Eckland, 1977). Hearn (1984), in a more recent study, found that blacks entered schools lower in selectivity, but higher in expenditures and tuition costs, while women entered colleges lower in selectivity, expenditures and costs. SES was also positively correlated with selectivity, expenditures, and costs.

In this study, disaggregated indicators of SES are used, rather than a composite measure. For women, father's education and family income influence college choice to the greatest degree. Unexpectedly, mother's education has a greater influence on college selection for men than for women. Father's occupation is also more influential for men. Overall, higher SES students enter colleges with lower vocational orientations, more full-time students, higher ability and SES composition, higher expenditures and costs, larger size, and offering higher level degrees.

Black students, male and female, differ significantly from whites in almost all of the college characteristics. Being black has negative effects on part-time composition, vocational majors, and selectivity. It has positive effects on degree level, low SES composition, educational expenditures, and costs. The negative effect of race on vocationalism and the positive effect on costs are stronger for women. This seems to indicate that black women are more likely to go to private liberal arts colleges.

Jewish students also enter colleges of higher ability and SES composition, less vocationalism, higher degree levels, higher expenditures and costs, and larger size. These effects are generally greater among women than men.

The most influential factors in the determination of where students go to college are those of academic preparation, as seen in the standardized

coefficients for each variable. Ability, high school achievement, and (to a lesser extent) being in a college prep curriculum all increase college "quality". Academic preparation increases college selectivity, SES composition, degree level, expenditures, costs, and size. It has negative effects on part-time composition and vocational orientation. There are no consistent sex differences in the effects of measured ability, but high school grades and curriculum have generally stronger effects for men than women.

Educational aspirations, on the other hand, generally have stronger effects for females, while academic self concept seems of little importance for either gender. The ability of background variables to predict where students go to college is quite similar for men and women. Only on SES composition are there noticeable differences in explained variance for men and women (with the R^2 greater for women). Overall, background variables have the greatest influence on college selectivity, SES composition, vocationalism, and degree level.

Table 1 Here

Colleges of different basic classifications do differ significantly in the specific characteristics used in this study. Table 2 shows dummy variable regressions of the college characteristics on two college typologies (described above). In this table the non-significant coefficients are marked with asterisks. From the first classification scheme, one can see that private universities have the highest ability and SES composition, the lowest part-time student proportions and vocational majors, the smallest size, and the highest per-student expenditures and costs. In fact, on ability and SES composition, part-time students, vocational majors, and expenditures, one can see a consistent ordering of institutions, from private university to private college, to public universities, to public college, with two-year colleges on

the bottom. Obviously, degree level is highest for universities and lowest for two-year colleges. Private institutions are smaller than all others, and public universities and colleges are the largest. Tuition costs are highest at private institutions, with public institutions of all types -- including two-year colleges -- differing little.

Catholic and other religious colleges, as seen in the second classification, are distinguished from public institutions primarily in their lower proportions of part-time students, their lower degree level, their lack of vocational majors, their small size, combined with relatively low expenditures per student. Non-Catholic religious colleges are most likel public colleges in ability and SES composition, but tend to be particularly small, with few part-time students, low degree levels, and the fewest vocational major areas. Non-religious private colleges share with religious ones many characteristics, but in addition have somewhat higher ability composition, moderate size, and greater expenditures per student. All three private types have higher ability and SES composition, smaller size and higher costs than public schools. These patterns vary little by gender, though a few differences should be noted. First, the private universities attended by women seem lower in size, compared to two-year colleges. Second, the public universities and colleges attended by women differ less from two-year colleges in expenditures per student and costs. Third, the Catholic colleges attended by women seem to be less "elite" in ability and SES composition, smaller, and of lower degree levels, than those attended by men. In general, these gender differences seem to reflect the entry by women into smaller liberal arts colleges and public institutions of lower selectivity.

Table 2 Here

Table 3 reiterates the need to control for role involvements of students

when examining college effects. This table shows the raw correlations of role involvement variables and both the classifications and college characteristics, for men and women. The correlations of employment in off-campus jobs shows that students at universities, non-Catholic religious schools, more selective, less integrated, more vocational, lower cost, and lower expenditure schools are less likely to work. Students at two-year colleges are most likely to work while in school. Work-study employment, on the other hand, is highest (especially for women) at religious colleges, private four-year schools, schools with lower SES composition, smaller in size. For men, work-study employment varies less by college type and characteristics. The number of hours worked per week also is more highly correlated with college variables for women than for men. Male college entrants work fewer hours when they enter colleges of higher degree-granting level, Catholic affiliation, higher ability and SES composition, fewer vocational majors, higher tuition, and higher expenditures. Women's employment is lowered most by entry to religious colleges, private four-year colleges, and institutions with higher degree levels, few part-time students, few vocational major areas, higher tuition, and higher selectivity.

Table 3 Here

In order to provide basic descriptive information on patterns in student academic achievement, contact with faculty, and general satisfaction with college life, Table 4 shows the net effects of the two different classification systems for colleges (the second controlling also for degree level), on these intervening college experience factors. For the first classification system, it is clear that students in two-year colleges receive the highest average grades, with public four-year colleges not far behind. For women, all other types are relatively equal in average grades, but for men, public universities are by far the lowest in grades. For men, public colleges, and

private institutions of both levels are relatively equal in average grades. College type and background explain relatively little in the variation in faculty contact, compared to that in grades. For men in particular, private institutions have a mild advantage over other types, while public universities have the most negative effect for both men and women. College satisfaction does not vary significantly by this college classification.

In the second set of equations, we see that degree level depresses both grades and faculty contact, for men and women. Catholic affiliation, on the other hand, significantly increases grades and faculty contact for men, though not women. Other religious affiliation increases faculty contact as well, especially for men, though also for women. Non-religious private colleges are also higher in faculty contact for both groups. The only effect of college type on satisfaction is the positive effect of religious control for men.

Table 4 Here

Table 5 shows how the nature of the college that a student enters affects his/her academic performance, degree of contact with college faculty, and overall sense of satisfaction with college experiences. For male college entrants, we see that students get higher grades in college when they enter colleges with lower degree-granting levels (like community colleges), high proportions of vocational major areas, large size, and high tuition. All of these college effects persist even controlling for different proportions of married, working, and on-campus students in different kinds of colleges. College characteristics do add significantly to the explanation of college grades, for male students. Among females, a different set of college characteristics is significant. Only the influence of vocational orientation of the college is shared with male students. For females, going to colleges with low SES composition and high proportions of part-time students are also signifi-

cant; once again, these effects cannot be explained by individual differences in role involvements. Both the overall explained variance and the increment to explained variance for college characteristics are greater for females than males. However, the increment to explained variance for role involvement factors is greater for male students. Among men, being in a work-study job increases grades, while living on-campus lowers grades. None of the role involvement factors reach significance among women.

Faculty contact, for men, increases with entry to colleges with high tuition/fees costs, and decreases with high part-time composition and and large size. For women students, size does not reach significance, though both part-time composition and tuition costs have effects similar in strength to those for men. In addition, women who go to colleges with higher degree levels have lower faculty contact. For men, these effects are not explained by differential role involvement, but for women, the negative effects of hours of employment and positive effects of living on-campus do explain a proportion of the effects of costs and part-time composition, but not degree level.

Female subjective satisfaction with college life is not explained by college characteristics. However, for men, higher college satisfaction is associated with going to colleges with few part-time students, lower degree level, and living on-campus. For women, only not working during college increases satisfaction.

Table 5 Here

Table 6 shows the net effects of the two different college typologies on educational attainment. The first typology, again comparing each against two-year colleges, indicates that persistence to the third year is higher for all the four-year college types than for two-year colleges. However, note that

among women private universities do not differ significantly from two-year colleges, while among men public universities do not differ significantly. For men there appears to be a basic advantage of private over similar public colleges; this is not true for women. In addition, for women, the disadvantage of two-year college entry is more extreme.

On-time degree attainment is also lowest for two-year entrants, though once again, men in public universities are nearly as low as this group in attainment. The advantage of private schools over public, including two-year schools, continues to be stronger for men than women.

Final degree attainment shows much the same pattern, though here public universities lead to higher odds of graduation even for men. Private colleges and universities are the most advantageous setting, in terms of overall degree attainment, for both men and women.

The second typology shows that persistence and degree attainment are positively affected by the level of offerings at the school first entered, for both men and women. For men, Catholic colleges have the highest persistence and on-time graduation odds, though eventual graduation rates are roughly the same as for other religious colleges. Non-religious private colleges are higher in attainment than public colleges only in on-time graduation rates. Public colleges have the lowest attainment levels. For women, peristence does not vary by affiliation. However, both Catholic and other religious colleges are superior in early graduation, and other religious colleges maintain an advantage in overall graduation rates.

Table 6 Here

As seen in Table 7, persistence to the beginning of the third year in college is not affected by college characteristics among male students. No single characteristics is significant, and the set as a whole does not

significantly increase the explained variance. On the other hand, for women students, colleges are important influences on persistence. Negative effects of part-time composition, vocational orientation, and tuition costs are seen. In the second equation for persistence, one can see that vocationalism and costs remain significant when controlling for role involvement and college experiences. Part-time composition, in this case, is partly explained by individual role involvement; no overall "contextual" effect remains. In fact, role involvements are more influential than college characteristics. When students, male or female, are married, work (in non-work/study jobs), and work many hours, they are less likely to persist to a third year of college. The negative effects of being married when entering college are more than twice as influential for female as male students. Work experience variables are marginally more important for males. College grades, faculty contact, and college satisfaction are all significant influences on persistence in college, for both men and women. Faculty contact seems to be more important for women than men, while the reverse is true for college grades and satisfaction.

The influence of colleges increases substantially when examining determinants of "on-time" and general bachelor's degree attainment, as seen in increments to explained variance. Part-time composition, large size, and higher per student expenditures, are associated with lower odds of both early and eventual degree attainment for males. Early degree completion is also associated with lower costs for males. Note that the effect of expenditures is <u>negative</u> rather than positive. Among women, on-time degree completion is increased when students enter colleges with few part-time students, higher degree levels, fewer vocational areas, and smaller size, For overall degree completion, few part-time students, <u>a</u>lower SES composition, and lower vocationalism are important college factors. Once again, role

involvement of individual students is just as important as where students go to college. Marriage, high hours of employment, and living off-campus are negative factors for women. The negative effect of marriage is again far more important for women than for men. Labor force participation, on the other hand, seems more detrimental for men. Not just the number of hours worked, but the mere fact of working is negative for men. These negative effects hold, however, only for employment off-campus. Work-study jobs do not hurt even on-time graduation, and have positive though non-significant effects on graduation by the last follow-up period. Living on-campus is important for the on-time graduation of both genders, but it continues to be important for women even for overall graduation odds. As anticipated, college grades, faculty contact, and college satisfaction are all significant for both men and women. However, the effect of grades is somewhat stronger for men. Note that even when role involvement, grades, contact and satisfaction are controlled, part-time composition, vocationalism (for women), and expenditures per student (for men) remain significant.

Table 7 Here

Summary and Conclusions

A summary of the determinants, correlates, and consequences of each of the college characteristics is provided below.

Low SES composition. For women, the SES composition of the college entered is dependent both on father's education and income; for men, only income is significant. For both genders, going to a college with a low SES composition is less likely among Jewish students, those with high ability, and those in a college prep program in high school. Women with higher educational expectations are also less likely to attend a low SES school. Overall, SES composition is more dependent on background for women. The college types

lowest in SES composition are two-year colleges and public four-year colleges. Students in low SES institutions show different patterns of role involvement: men tend to be employed in off-campus jobs and to work more hours, women tend to be in on-campus jobs. Students in such institutions are less likely to live on-campus and more likely to be married. Women who enter such institutions receive higher grades, and because of this are more likely to eventually obtain a bachelor's degree (though not on a normal time schedule).

Selectivity. For men, college selectivity is influenced by father's occupation and mother's education. For women, income and father's education are more important. Black students, male and female, enter less selective colleges, while Jewish students enter more selectivie ones. Ability, high school grades, and educational goals are important for both, but high school curriculum has a significant effect only for men. The most selective colleges are those classified as private universities, followed by private colleges and public universities. Private, non-religious colleges are more selective than religious ones. Students at more selective institutions work less (for women, even at work-study jobs), work fewer hours if employed, live on-campus in greater proportions, and do not tend to be married. In isolation, selectivity has no effect on grades (though the direction is negative as one would expect), or attainments.

Educational expenditures. Only for males does SES affect per student expenditures of institutions attended. Black students, especially among women, attend schools with higher expenditures, as do Jewish students. Ability has a positive effect on expenditures for both men and women, but high school grades have a greater effect for men. Educational goals also have a stronger effect among male students. Expenditures are highest in private universities, private colleges (especially non-religious), and public

universities. They are lowest at two-year colleges. Among men, private universities attended have particularly high expenditure levels compared to all others. Students who go to schools with high expenditures are less likely to work and work fewer hours if employed, are more likely to live on-campus, and less likely to be married. Expenditures do not affect grades or faculty contact; they do tend to lower the odds of graduation for men, controlling all else.

Tuition and fees costs. Family income affects the cost of the college students choose to attend. Father's education also has an effect on college cost for women, though not men. Being black or Jewish, having high measured ability, coming from a college prep curriculum, and having high educational goals also increase the cost of college choices. Educational goals are more influential among women. Costs, as expected, are higher for private universities and colleges, and lower for all public and two-year institutions. Non-religious and Catholic colleges cost more than other religious colleges. Students who attend higher cost institutions also work less, are more likely to live on-campus, and less likely to be married. Students at higher cost colleges tend to have higher faculty contact, and men tend to receive higher grades. Effects on attainment vary by gender. Among women, cost has a negative effect on early persistence, though no effect on graduation odds. Among men, cost has a positive effect on odds of graduation.

Degree-granting level. Among women, choice of a higher degree-granting institution is again dependent both on father's education and income, while among men only father's occupation is influential. Blacks, Jews, higher ability students, with better high school grades from college prep curricula, tend to enter universities rather than two-year colleges. The effects of curriculum are again greater among men. However, the effects of educational

goals are greater for women. Naturally, universities have the highest degree level, followed by four-year colleges. Public colleges tend to have higher degree levels than private institutions (especially if religious affiliated). Students at institutions granting higher level degrees also work less (even at work-study jobs for women), work fewer hours if they hav jobs, tend to live on-campus and are not likely to be married. Universities, however, lead to lower faculty contact for women, and lower grades (and consequently satisfaction) for men. When degree level is entered into equations alone, it has positive effects on attainment, but when controlling for other college characteristics, it has no significant effects.

Size. Father's occupation (for women) and income (for men) have positive effects on college size. Jewish students, and those with higher ability, past performance, and goals, also enter larger colleges. Public universities are the largest institutional type, followed by public four-year colleges and two-year colleges. All private institutions tend to be smaller in size (especially those with a religious affiliation). Women who attend larger schools are less likely to get work-study jobs. Students at larger colleges get higher grades, but men also tend to have less contact with faculty. Controlling for these factors, students at large institutions are less likely to get bachelor's degrees.

Part-time composition Again, father's education and income have negative effects on part-time composition for women. Blacks, those of higher ability and past performance, and those with higher educational goals, are all likely to enter colleges with more full-time students. High school curriculum is significant only for men. The institutional type with the most part-time students is two-year colleges, while those with the fewest part-time students are private universities and colleges. When students attend institutions with

many part-time students, they are also more likely to be working themselves (except in work-study jobs among women), work more hours, are unlikely to live on-campus, and more likely to marry. Despite these factors, students at colleges with low structural integration tend to get higher grades (especially among women). However, faculty contact is lower at such schools. Despite their higher grades, women who enter such colleges are particularly harmed: they are lower in persistence, on-time and overall graduation rates.

Vocational orientation. Income is again a significant predictor of degree of vocationalism of college for women. Blacks, Jews, students with better academic preparation and those with higher goals, all are less likely to enter vocationally oriented schools, and more likely to enter those with more traditional arts and sciences majors. Vocationalism in curriculum structure is most prevalent at two-year colleges, public four-year colleges, and public universities, and least prevalent at private institutions (especially religious ones). Students at more vocational schools also work more off-campus, for more hours per week, are less likely to live on-campus and more likely to be married. Students at more vocationally oriented colleges do get higher grades (if female), but have less contact with faculty and lower satisfaction (if male). Among women, entry to highly vocational institutions seems negative, though this is primarily due to the off-campus role involvements of students. However, controlling role involvements, there is still a negative effect of vocationalism on overall degree completion. For men, entry to such colleges is more harmful, lowering both on-time and overall degree completion, even controlling for role involvement factors.

These results clearly indicate the importance of college factors other than the traditionally used "selectivity" or "quality". In fact, ability composition (as a measure of selectivity) and expenditures per student (as a measure of quality) showed none of the expected effects on educational attainments. The college factors which appeared to have greater independent importance include cohesion or integration of students (as measured by proportion of students enrolled only part-time), SES composition, vocational rather than liberal arts/sciences orientation of curricula, size and complexity, and costs.

Analyses of college effects on average grades and faculty contact also indicate that these are important intervening factors. College grades are not responsive just to ability composition, as a number of studies of the "frog-pond" effect have suggested. SES composition, student integration, costs, degree level, and vocationalism all had effects on average grades for either men or women. Colleges respond to student composition and to their own goals (as indicated by vocational offerings) by setting varying standards for student performance (and thus graduation). Colleges also offer varying opportunities for students to get to know faculty members. Interestingly, the colleges that have the most lenient grading standards are also likely to have the least student-faculty contact. Since both grades and faculty contact affect persistence and graduation, a number of college characteristics have positive and negative effects which cancel each other out.

Student selection of colleges is based both on their own ability and past performance, and on social background. Both achievement and ascription remain important in the college choice process. In general, these results also confirm earlier studies that have shown greater influence of ascriptive factors for women and achievement for men in where students go to college.

Income and father's education seem of particular importance for women students. They need both financial support from home, and the support of a more educated father if they are to attend a more elite college.

These results also show the importance of the degree to which students hold competing roles during the college years. Students who work (unless as part of a work-study program), who live off-campus, or who are married have lower probabilities of persistence and graduation (even in a longer than "normal" span of years. Role involvement does not lower attainment primarily by lowering student academic performance. In fact, for women, no effects of role involvement on grades appear, while for men only two of the factors are significant. In fact for men, one of the two significant factors has a direction opposite to that predicted. Men who live on campus receive lower average grades (this is not true for women). Some of the effects of role involvement on attainment can be traced to lower contact with faculty and lower satisfaction with college life; however, direct effects of role involvement also remain. Womens' attainment is even more strongly affected by role involvement than mens'. As other studies have found, marriage while in college is more apt to lead to dropping out of college for women than men. In fact, marriage has at least as strong an effect of persistence and graduation of women as their performance in college. College academic performance is more relevant to attainment for men than for women.

Implications of Results

The general trend in the development of higher education in the U.S. has been toward the growth of precisely the sort of institutions which this study has found to lower student contact with their faculty, student satisfaction, persistence, and graduation: vocationally oriented, many part-time commuter students, large in size, under public control. More institutions of all types

have also begun to encourage or accept more "non-traditional" students who are married, live off-campus, work while in school at off-campus jobs, and have little time to get to know faculty members outside of the classroom. These reults indicate that such developments may simply be encouraging a "revolving door" process for students. It is possible that these competing role involvements are not as negative among older students with higher motivation for college graduation. However, the context that these developments provide for even the "traditional" student tends to be a harmful one.

A number of research needs are suggested by these analyses. First, we need additional work on the measurement and analysis of college characteristics other than those most closely tied to "selectivity" or "quality". Second, we need more information on the role of different standards for academic performance at different kinds of institutions. Why is it that those schools that give the highest grades to students are not able to encourage these same students to persist and graduate? Why are these same schools low in student-faculty contact? Third, we need more exploration of differences ii involvement of students with the student role rather than roles as spouses and parents, and workers. Is differential role involvement chosen freely by the student, regardless of institutional choice, or can and do colleges structure the decisions students make about role involvements? Are competing role involvements signs of a lack of commitment to college, or financial or structural necessities? Are there ways that institutions can compensate for the negative effects of student employment, off-campus residence and marriage? Are there ways that faculty/student contact can be increased, thus increasing student commitment to college?

Finally, these college effects need to be examined for more recent student groups, among whom "nontraditional" colleges and students have become

almost the norm. Have dropout rates increased over time at institutions showing the features shown to be negative in this study? Or have institutions already managed to compensate in some fashion on order to maintain enrollments?

Footnotes

[1] These analyses use only the first college attended (1972). By a match-merging process, data on the first institution attended were added to student records. Data on institutions were taken from two machine-readable data files, which themselves include data from: American Council on Education surveys, HEGIS, HED, Tripartite, and other federal data bases. Wherever possible, missing data in a variable from one source was replaced with an estimate from similar variables from other sources. The two machine-readable data files are Tenison (1976) -- prepared for the College Entrance Examination Board, and Carroll (1979) - Characteristics of PostSecondary Education- prepared for the Office of Education. The Tenison file includes matched data for institutions attended by 73% of the NLS respondents enrolled in college in 1972 or 1973. This file includes chiefly traditional colleges and universities. The Carroll file has wider coverage of institutions. However, since this study is limited to students in academic programs, many of the non-traditional institutions are not needed. In addition, a large proportion of the institutions in the Carroll file did not have F.I.C.E. codes, which were necessary in order to merge the data with NLS records. Therefore, only records in the Carroll file with F.I.C.E. codes were utilized (N=5975). The Tenison file (N=4139) data were then merged into the Carroll file (which included all of the Tenison institutions). Measures from these sources to be used in analysis were selected on the basis of relevance to the project, extent of missing data, and data quality. Measures with great overlap with similar measures, with little variability, or with obvious errors, were excluded. Wherever possible, measures used in this study were validated by comparison with similar measures and with published data on the population.

FIGURE 1

Causal Model of College Effects on Educational Attainment

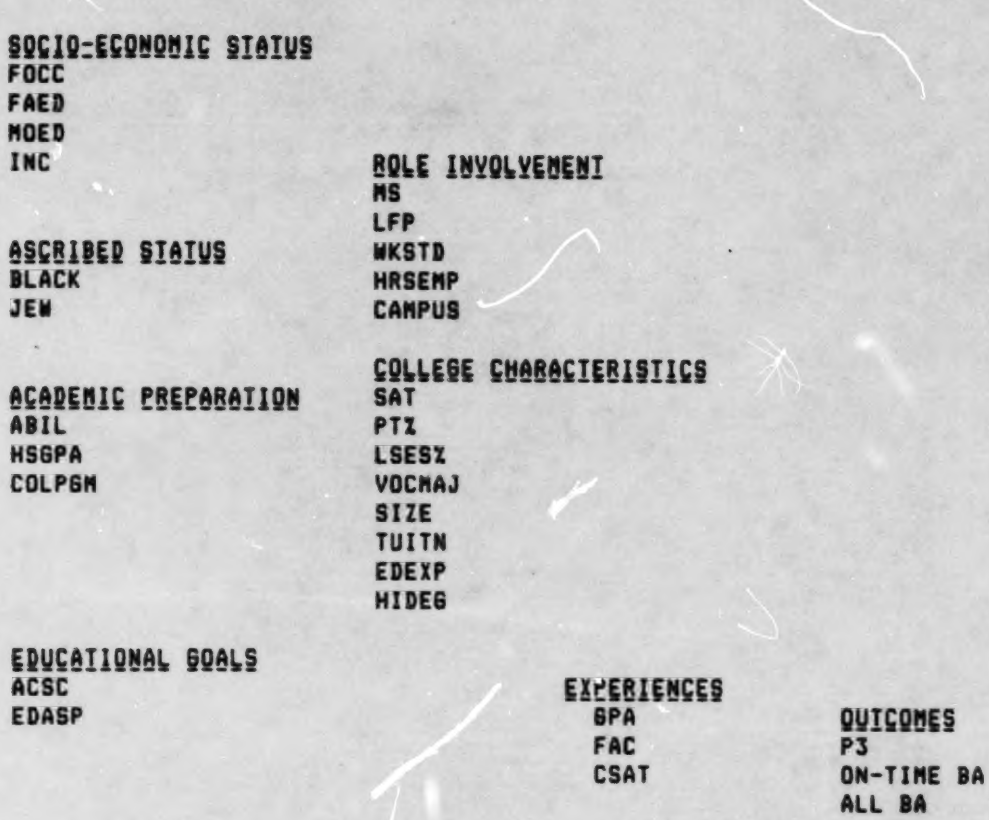

Table 1

Selection into Colleges by Gender
Metric (Standardized) Regression Coefficients

	LSES		EDEXP		TUITN		SIZE	
	F	M	F	M	F	M	F	M
FOCC	.000	-.002	-.099	.042*	-2.530	8.980	19.350*	7.030
	(.001)	(-.032)	(-.012)	(.047)	(-.008)	(.029)	(.048)	(.018)
FAED	-.006*	.001	1.092	.140	33.900*	12.990	180.160	226.720
	(-.067)	(.011)	(.077)	(.008)	(.064)	(.023)	(.025)	(.032)
MOED	.002	- .001	-.028	1.390*	16.940	34.780	-353.650	-222.530
	(.021)	(-.010)	(-.002)	(.070)	(.027)	(.052)	(-.040)	(-.026)
INC	-.005*	-.003*	.254	.068	13.260*	14.530*	48.600	265.200*
	(-.105)	(-.065)	(.034)	(.008)	(.048)	(.052)	(.013)	(.073)
BLACK	.095*	.094*	7.499*	6.850*	204.100*	131.960*	545.250	474.3410
	(.240)	(.206)	(.123)	(.081)	(.090)	(.046)	(.014)	(.016)
JEW	-.029*	-.023*	7.645*	4.920*	476.220*	403.920*	4215.370*	4021.240*
	(-.049)	(-.039)	(.084)	(.047)	(.141)	(.112)	(.090)	(.089)
ABIL	-.026*	-.028*	3.564*	4.220*	161.590*	126.080*	1132.600*	776.270*
	(-.149)	(-.162)	(.129)	(.132)	(.158)	(.116)	(.079)	(.057)
HSGPA	.001	-.008	.502*	1.060*	-5.407	8.380	283.180*	188.190*
	(.019)	(-.019)	(.070)	(.136)	(-.020)	(.032)	(.081)	(.053)
COLPGM	-.020*	-.026*	.590	.460	111.990*	142.680*	269.110	310.920
	(-.074)	(-.100)	(.014)	(.010)	(.073)	(.089)	(.013)	(.015)
ACSC	.003	.004	.592	-.102	25.170	6.780	245.650	-7.260
	(.013)	(.023)	(.019)	(-.003)	(.023)	(.006)	(.017)	(-.000)
EDASP	-.011*	-.001	1.734*	2.220*	102.310*	67.470*	649.000*	800.350*
	(-.060)	(-.005)	(.062)	(.068)	(.096)	(.061)	(.045)	(.056)
R^2	.192	.148	.070	.094	.108	.095	.049	.041

* Significant at the .05 level

Table 1
Selection into Colleges by Gender (Continued)
Metric (Standardized) Regression Coefficients

	HIDEG		PTI		VOCMAJ		SAT	
	F	M	F	M	F	M	F	M
FOCC	-.092	.033*	.003*	-.002	.001	-.001	.300	2.71*
	(-.026)	(.068)	(.045)	(-.027)	(.007)	(-.017)	(.006)	(.051)
FAED	.050*	.012	-.005	-.005	-.006	-.005	8.370*	3.330
	(.061)	(.014)	(-.047*)	(-.044)	(-.045)	(-.034)	(.093)	(.035)
MOED	-.005	-.026	-.002	-.008*	-.002	-.006	2.756	6.360*
	(-.005)	(-.026)	(-.014)	(-.057)	(-.016)	(-.035)	(.026)	(.055)
INC	.026*	.007	-.003*	.002	-.004*	-.000	3.140*	-19.520*
	(.061)	(.017)	(-.045)	(.030)	(-.053)	(-.003)	(.068)	(-.0[illegible])
BLACK	.322*	.376*	-.042*	-.051*	-.049*	-.040*	-19.590*	-19.52[illegible]*
	(.091)	(.081)	(-.091)	(-.085)	(-.090)	(-.057)	(-.051)	(-.039)
JEW	.226*	.229*	-.004	.009	-.072*	-.046*	73.960*	57.560*
	(.043)	(.040)	(-.006)	(.012)	(-.087)	(-.052)	(.129)	(.094)
ABIL	.177*	.253*	-.031*	-.029*	-.035*	-.035*	36.060*	39.570*
	(.110)	(.145)	(-.146)	(-.128)	(-.141)	(-.130)	(.208)	(.212)
HSGPA	.055*	.066*	-.004*	-.007*	-.004*	-.007*	4.430*	6.450*
	(.131)	(.155)	(-.075)	(-.133)	(-.057)	(-.102)	(.098)	(.142)
COLPGM	.100*	.231*	-.009	-.019*	-.037*	-.037*	8.460	21.400*
	(.042)	(.090)	(-.029)	(-.058)	(-.101)	(-.094)	(.033)	(.078)
ACSC	-.018	-.074*	-.007	.005	-.004	.003	-1.540	-.335
	(-.011)	(-.043)	(-.029)	(.020)	(-.014)	(.013)	(-.008)	(-.002)
EDASP	.364*	.252*	-.031*	-.026*	-.037*	-.043*	21.940*	16.180*
	(.217)	(.143)	(-.141)	(-.110)	(-.144)	(-.159)	(.121)	(.085)
R^2	.14[illegible]	.148	.096	.102	.130	.135	.218	.217

TABLE 2
College Type Differences in Specific Characteristics (Females)
Unstandardized Coefficients

	SAT	PTI	LSES	HIDEG	VOCMAJ	SIZE	TTN	EDEXP
PRU	200.054	-.222	-.093	2.137	-.322	-2386.76	1718.02	20.19
PR4	128.252	-.215	-.061	1.101	-.286	-2143.73	1354.53	14.84
PUBU	106.709	-.193	-.043	2.143	-.262	8503.39	7.49*	9.64
PUB4	62.611	-.171	-.006*	1.985	-.174	7123.41	-8.29*	8.85
A	884.277	.289	.223	1.378	.679	6628.13	516.35	13.13
R^2	.211	.333	.049	.593	.424	.196	.654	.089
CATH	72.188	-.079	-.071	-.059*	-.099	-8754.10	1314.74	1.75*
RELIG	35.540	-.120	-.028	-.329	-.123	-9471.68	1249.63	1.99*
PRIV	104.983	-.068	-.044	-.077*	-.092	-5304.38	1449.75	15.67
A	726.093	.446	.349	3.201	.853	35528.108	-3548.889	-.329
R^2	.079	.077	.023	.008	.069	.123	.639	.062

*NOT significant at .05 level

TABLE 2

College Type Differences in Specific Characteristics (Males)
Unstandardized Regression Coefficients

	SAT	PTZ	LSES%	HIDEG	VOCMAJ	SIZE	TTN	EDEXP
PRU	217.961	-.239	-.107	2.183	-.322	-1616.85	1783.99	22.28
PR4	152.677	-.211	-.081	1.283	-.282	-372.94*	1426.17	13.00
PUBU	121.364	-.202	-.046	2.234	-.271	9759.17	8.65*	13.09
PUB4	78.195	-.181	.000*	1.283	-.172	8021.57	14.53*	13.63
A	881.488	.299	.217	1.386	.681	6371.38	512.91	13.95
R^2	.273	.338	.092	.598	.414	.209	.715	.099
CATH	122.609	-.104	-.089	.657	-.156	-6329.13	1517.00	.03*
RELIG	61.370	-.131	-.048	-.214	-.142	-9181.31	1300.23	-.10*
PRIV	109.841	-.077	-.057	.164	-.081	-5075.95	1489.46	13.12
A	647.605	.502	.396	2.099	.924	32701.40	-3829.126	9.053
R^2	.109	.083	.046	.016	.079	.099	.673	.038

*NOT significant at .05 level

Table 3

Correlations of College Characteristics and Role Involvements By Gender

	LFP		WKSTD		HRSEMP		CAMPUS		MS	
	F	M	F	M	F	M	F	M	F	M
HIDEG	-.172	-.204	-.059	-.008	-.112	-.073	.245	.234	-.043	-.058
CATH	-.015	-.018	.026	.012	-.007	-.051	.034	.031	-.016	-.007
RELIG	-.087	-.090	.100	.036	-.085	-.011	.186	.123	-.002	.006
PRIV	-.016	-.034	.007	.021	-.052	-.011	.066	.099	-.023	-.008
PRU	-.038	-.090	-.011	-.010	-.029	-.044	.119	.146	-.014	-.026
PR4	-.081	-.065	.104	.076	-.120	-.034	.163	.129	-.020	.003
PUBU	-.059	-.062	-.082	-.025	-.007	-.047	.023	.017	-.048	-.049
PUB4	-.044	-.054	.009	.004	-.025	.006	.065	.104	.011	.015
SAT	-.141	-.190	-.064	-.019	-.084	-.095	.193	.276	-.070	-.070
PT%	.265	.290	-.051	-.034	.161	.109	-.351	-.349	.036	.046
LSES%	-.001	.069	.055	-.002	.018	.033	-.086	-.145	.054	.045
VOCMAJ	.142	.156	.014	-.010	.114	.096	-.227	-.214	.052	.046
SIZE	-.010	-.031	-.100	-.036	.024	-.025	-.054	.023	-.025	-.048
TUITN	-.117	-.146	.034	.027	-.098	-.075	.246	.241	-.036	-.038
EDEXP	-.112	-.120	-.022	-.007	-.045	-.047	.165	.212	-.027	-.041

TABLE 4

Net College-Type Effects on College Experiences by Gender
Unstandardized (Standardized) Coefficients

	GPA		FAC		CSAT	
	F	M	F	M	F	M
PRU	-.377*	-.213*	.009	.067	-.012	.069
	(-.071)	(-.043)	(.005)	(.040)	(-.004)	(.029)
PR4	-.336*	-.244*	.044	.082*	-.003	.044
	(-.088)	(-.057)	(.034)	(.056)	(-.001)	(.022)
PUBU	-.372*	-.376*	-.063*	-.080*	-.048	-.053
	(-.117)	(-.108)	(-.059)	(-.068)	(-.030)	(-.033)
PUB4	-.255	-.269*	-.038	-.035	-.050	-.022
	(-.078)	(-.079)	(-.024)	(-.030)	(-.030)	(-.014)
A	1.883	1.496	1.392	1.228	3.805	3.870
R^2	.222	.168	.016	.026	.039	.029
HIDEG	-.125*	-.101*	-.022*	-.022*	-.010	-.006
	(-.108)	(-.087)	(-.056)	(-.055)	(-.017)	(-.011)
CATH	.065	.319*	.003	.106*	.001	.115
	(.009)	(.042)	(.010)	(.041)	(.000)	(.033)
RELIG	-.124	-.056	.067*	.196*	.055	.186*
	(-.029)	(-.012)	(.047)	(.123)	(.026)	(.085)
PRIV	-.036	-.037	.092*	.072*	.072	.028
	(-.036)	(-.009)	(.066)	(.050)	(.034)	(.014)
A	2.087	1.369	1.225	.832	3.706	3.524
R^2	.221	.167	.019	.034	.040	.028

* Significant at .05 level

Table 5
College and Role Effects on College Experiences, Females
Metric (Standardized) Regression Coefficients

	GPA		FAC		CSAT	
SAT	-.043	-.039	-.006	-.007	.013	.011
	(-.040)	(-.037)	(-.017)	(-.020)	(.025)	(.020)
PTX	.488*	.429*	-.176*	-.109	-.189	-.153
	(.055)	(.049)	(-.059)	(-.037)	(-.043)	(-.035)
LSESX	.811*	.815*	.069	.066	.195	.176
	(.078)	(.079)	(.020)	(.019)	(.037)	(.034)
HIDEG	-.047	-.039	-.023*	-.028*	-.006	-.007
	(-.041)	(-.034)	(-.060)	(-.071)	(-.010)	(-.013)
VOCMAJ	.341*	.339*	.089	.089	.146	.145
	(.046)	(.046)	(.036)	(.036)	(.039)	(.039)
SIZE	.003	.002	-.002	-.001	-.003	-.003
	(.019)	(.014)	(-.034)	(-.021)	(-.043)	(-.042)
TUITN	.008	.008	.003*	.003	.001	.002
	(.042)	(.043)	(.056)	(.049)	(.001)	(.002)
EDEXP	-.015	-.105	.033	.003	.027	.026
	(-.016)	(-.016)	(.015)	(.015)	(.008)	(.008)
MS		.135		-.030		.074
		(.025)		(-.017)		(.027)
LFP		.004		-.005		-.072*
		(.001)		(-.005)		(-.050)
WKSTD		.102		.024		-.048
		(.020)		(.014)		(-.019)
HRSEMP		.064		-.047*		-.018
		(.029)		(-.063)		(-.016)
CAMPUS		-.072		.061*		-.01[illegible]
		(-.024)		(.063)		(-.010)
R^2	.232*	.234	.023*	.031*	.043*	.046
R^2 Controls	.209		.009		.038	

*Significant at .05 level

Table 5
College and Role Effects on College Experiences, Males
Metric (Standardized) Regression Coefficients

	GPA		FAC		CSAT	
SAT	-.050	-.044	-.007	-.009	-.017	-.019
	(-.046)	(-.044)	(-.020)	(-.026)	(-.034)	(-.037)
PT%	.002	-.049	-.213*	-.163*	-.317*	-.259*
	(.000)	(-.006)	(-.071)	(-.054)	(-.077)	(-.063)
LSE%	.307	.318	-.009	.002	-.069	-.055
	(.026)	(.027)	(-.002)	(.001)	(-.013)	(-.010)
HIDEG	-.083*	-.079*	-.012	-.013	-.034*	-.034*
	(-.071)	(-.068)	(-.031)	(-.034)	(-.063)	(-.064)
VOCMAJ	.413*	.429*	.044	.036	-.054	-.059
	(.055)	(.057)	(.017)	(.014)	(-.016)	(-.017)
SIZE	.008*	.008*	-.005*	-.005*	.001	-.001
	(.059)	(.058)	(-.105)	(-.101)	(.014)	(.018)
TUITN	.011*	.011*	.004*	.004*	.003	.003
	(.060)	(.061)	(.064)	(.061)	(.040)	(.037)
EDEXP	-.024	-.009	-.049	-.048	-.019	-.023
	(-.004)	(-.001)	(-.023)	(-.022)	(-.006)	(-.008)
MS		.177		.008		.144
		(.021)		(.002)		(.038)
LFP		-.026		-.027		.005
		(-.009)		(-.028)		(.004)
WKSTD		.286*		.024		.018
		(.042)		(.010)		(.006)
HRSEMP		-.017		-.001		-.002
		(-.009)		(-.020)		(-.025)
CAMPUS		-.124*		.039		.080*
		(-.040)		(.036)		(.056)
R^2	.170*	.174*	.039*	.042	.032*	.036*
R^2 Controls	.158		.014		.024	

* Significant at .05 level

TABLE 6

Net Effects of College Typologies on Educational Outcomes by Gender
Metric (Standardized) Coefficients

	P3		On-time BA		All BA	
	F	M	F	M	F	M
PRU	.034	.089*	.170*	.276*	.171*	.206*
	(.017)	(.051)	(.083)	(.160)	(.083)	(.113)
PR4	.118*	.073*	.191*	.234*	.165*	.172*
	(.082)	(.049)	(.130)	(.156)	(.112)	(.109)
PUBU	.119*	.083	.138*	.036	.150*	.091*
	(.099)	(.122)	(.13)	(.030)	(.122)	(.071)
PUB4	.122*	.050*	.123*	.105*	.129*	.122*
	(.099)	(.042)	(.098)	(.089)	(.102)	(.097)
A	-.801	-.645	-1.018	-1.103	-.068	.046
R^2	.173	.137	.178	.203	.235	.219
HIDEG	.031*	.017*	.043*	.025*	.048*	.041*
	(.071)	(.041)	(.097)	(.062)	(.108)	(.095)
CATH	-.014	.116*	.124*	.339*	.084	.169*
	(-.015)	(.044)	(.046)	(.129)	(.020)	(.061)
PRIV	-.021	-.003	.032	.127*	.026	.018
	(-.013)	(-.002)	(.020)	(.086)	(.016)	(.012)
OTHREL	.032	.057	.117*	.177*	.092	.157*
	(.020)	(.035)	(.072)	(.108)	(.056)	(.090)
A	-.819	-.837	-1.357	-1.788	-.295	-.351
R^2	.167	.138	.175	.201	.232	.212

* Significant at .05 level

TABLE 7

College, Role, and Experience Effects on Educational Attainment, Females
Metric(Standardized) Regression Coefficients

	P3			On-time BA			All BA		
SAT	.009	.004	.005	.013	.009	.011	.016	.019	.013
	(.024)	(.011)	(.013)	(.031)	(.023)	(.026)	(.039)	(.029)	(.032)
PTI	-.227*	-.118	-.113	-.380*	-.262	-.262	-.253*	-.140*	-.143*
	(-.069)	(-.036)	(-.034)	(-.112)	(-.077)	(-.077)	(-.074)	(-.041)	(-.042)
LSESI	.123	.114	.083	.071	.065	.014	.186*	.181*	.136
	(.032)	(.029)	(.021)	(.018)	(.016)	(.003)	(.046)	(.045)	(.034)
HIDEG	.003	-.000	.003	.022*	.014	.018	.019	.014	.017
	(.006)	(-.001)	(.006)	(.050)	(.032)	(.042)	(.042)	(.031)	(.039)
VOCMAJ	-.148*	-.145*	-.165*	-.149*	-.151*	-.181*	-.185*	-.184*	-.209*
	(-.053)	(-.052)	(-.059)	(-.052)	(-.053)	(-.063)	(-.064)	(-.064)	(-.073)
SIZE	.001	.001	.002	-.004*	-.003*	-.003*	-.001	-.000	-.000
	(.013)	(.027)	(.030)	(-.084)	(-.064)	(-.060)	(-.024)	(-.007)	(-.005)
TUITN	-.003*	-.003*	-.003*	-.002	-.005	-.001	-.001	-.001	-.001
	(-.040)	(-.039)	(-.045)	(-.003)	(-.008)	(-.016)	(-.008)	(-.010)	(-.017)
EDEXP	-.036	-.034	-.035	-.085	-.089	-.089	-.028	-.028	-.027
	(-.014)	(-.013)	(-.014)	(-.033)	(-.035)	(-.035)	(-.011)	(-.011)	(-.010)
MS		-.352*	-.336*		-.204*	-.213*		-.302*	-.310*
		(-.174)	(-.176)		(-.099)	(-.103)		(-.145)	(-.148)
LFP		-.076*	-.072*		-.038	-.033		-.052*	-.048*
		(-.070)	(-.068)		(-.035)	(-.030)		(-.047)	(-.043)
WKSTD		.053	.051		.003	-.000		.054	.051
		(.028)	(.027)		(.001)	(-.000)		(.027)	(.026)
HRSEMP		-.059*	-.056*		-.038*	-.035*		-.051*	-.050*
		(-.071)	(-.068)		(-.044)	(-.042)		(-.060)	(-.059)
CAMPUS		.034	.032		.113*	.103*		.069*	.069*
		.031)	(.030)		(.102)	(.101)		(.061)	(.062)
FAC			.066*			.075*			.056*
			(.059)			(.065)			(.048)
SFA			.022*			.042*			.039*
			(.058)			(.110)			(.102)
CSAT			.045*			.068*			.050*
			(.060)			(.089)			(.065)
R^2	.172*	.220*	.233*	.193*	.218*	.246*	.240*	.276*	.300*
R^2 Controls	.159			.160			.218		

* Significant at .05 level

TABLE 7

College, Role, and Experience Effects on Educational Attainment, Males
Metric (Standardized) Regression Coefficients

	P3			On-time BA			All Ba		
SAT	-.003	-.008	-.005	.012	.005	.009	.011	.004	.008
	(-.009)	(-.022)	(-.014)	(.031)	(.012)	(.024)	(.028)	(.010)	(.020)
PTI	-.081	-.006	.020	-.383*	-.247*	-.215*	-.436*	-.314*	-.287*
	(-.026)	(-.002)	(.006)	(-.125)	(-.080)	(-.070)	(-.134)	(-.097)	(-.089)
LSES	-.024	-.014	-.020	-.149	-.125	-.138	.056	.077	.064
	(-.006)	(-.003)	(-.005)	(-.037)	(-.031)	(-.034)	(.013)	(.018)	(.015)
HIDEG	.007	.006	.011	.003	-.001	.007	.014	.010	.017
	(.018)	(.015)	(.028)	(.007)	(-.003)	(.016)	(.033)	(.025)	(.040)
VOCMAJ	-.076	-.083	-.093	-.006	-.029	-.051	-.071	-.091	-.112
	(-.029)	(-.031)	(-.035)	(-.002)	(-.011)	(-.020)	(-.026)	(-.033)	(-.040)
SIZE	-.000	.000	-.000	-.003*	-.003*	-.003*	-.002*	-.002	-.002
	(-.001)	(.002)	(-.001)	(-.064)	(-.053)	(-.056)	(-.045)	(-.037)	(-.039)
TUITN	.002	.003	.002	.008*	.008*	.007*	.003	.003	.002
	(.038	(.039)	(.028)	(.130)	(.124)	(.107)	(.042)	(.040)	(.026)
EDEXP	-.053	-.038	-.035	-.085*	-.088*	-.082*	-.120*	-.110*	-.104*
	(-.024)	(-.017)	(-.016)	(-.039)	(-.040_	(-.038)	(-.052)	(-.047)	(-.045)
MS		-.204*	-.219*		-.104*	-.123*		-.217*	-.233*
		(-.071)	(-.077)		(-.037)	(-.044)		(-.072)	(-.078)
LFP		-.089*	_.088*		-.056*	-.053*		-.119*	-.116*
		(-.090)	(-.089)		(-.058)	(-.054)		(-.116)	(-.113)
WKSTD		-.014	-.025		-.012	-.031		.026	.009
		(-.006)	(-.010)		(-.005)	(-.013)		(.010)	(.004)
HRSEMP		-.058*	-.056*		-.028	-.018		-.036*	-.033*
		(-.090)	(-.086)		(-.033)	(-.027)		(-.051)	(-.047)
CAMPUS		-.009	-.012		.130*	.129*		.037	.036
		(-.008)	(-.011)		(.122)	(.120)		(.032)	(.032)
FAC			.038*			.076*			.073*
			(.037)			(.074)			(.068)
GPA			.029*			.054*			.049*
			(.085)			(.156)			(.133)
CSAT			.069*			.091*			.049*
			(.092)			(.068)			(.062)
R^2	.139	.160*	.180*	.222*	.243*	.288*	.226*	.249*	.280*
R^2	.132			.161			.190		
Controls									

* Significant at .05 level

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